What is claimed is

1. An image reading apparatus comprising:

an image input unit for generating an analog image signal corresponding to optical density information of an original;

an A/D converter for converting the analog image signal inputted from the image input unit into a digital image signal;

an image processor for generating a primary control signal and for executing an image process operating based on the digital image signal inputted from the A/D converter;

a controller for generating a secondary control signal from the primary control signal for controlling the image input unit based on the generated secondary control signal, a pulse width of the secondary control signal being shorter than a pulse width of the primary signal; and

a wiring member for electrically connecting the image processor to the controller for transmitting the primary control signal therethrough.

2. The image reading apparatus according to claim 1, wherein

the image input unit and the controller are provided

in a carriage which is reciprocated in parallel to a surface of the original, and

the image processor is provided in a case which supporting the carriage so as to allow the reciprocation motion of the carriage.

3. The image reading apparatus according to claim 2, wherein

the controller generates a sampling signal in synchronism with the secondary control signal from the primary control signal,

the A/D converter is provided in the carriage and converts the analog image signal into the digital image signal by using the sampling signal, and

the wiring member transmits the digital image signal.

4. The image reading apparatus according to claim 1, wherein the controller includes a PLL circuit.

5. The image reading apparatus according to claim 2, wherein the wiring member has flexibility for allowing the reciprocation motion of the carriage.

6. The image reading apparatus according to claim 1, wherein frequency of the secondary control signal is multiple of frequency of the primary control signal.